Amendment

Kindly amend the claims as follows:

1. (currently amended) Apparatus for directing particles entrained in a fluid, comprising a chamber having a first wall, including means for generating a sound wave having a frequency ν, and a second, opposite wall capable of reflecting the sound wave in which the first and second ~~wall~~walls define a conduit for the passage of the fluid, and in which the thickness of the second wall is such that the path length of the standing wave in the second wall is a multiple of about ½ the wavelength λ_r of the sound wave therein.

2. (original) Apparatus according to Claim 1, in which the first wall further comprises a coupling layer.

3. (previously presented) Apparatus according to Claim 2, in which the width of the conduit is a multiple of ½ or ¼ for the wavelength λ_f of the sound wave in the fluid.

4. (previously presented) Apparatus according to Claim 3, in which the thickness of the material transmitting the sound wave in the first wall is a multiple of ½ or ¼ of the wavelength λ_t of the sound wave therein.

5. (previously presented) Apparatus according to Claim 1, in which the thickness of the material capable of generating the sound wave is an odd multiple of ½ of the wavelength λ_g of the sound wave therein.

6. (previously presented) Apparatus according to Claim 1, in which the total acoustic path length of the wave is a multiple of ½ of the wavelength of the sound wave λ therein.

7. (previously presented) Apparatus according to Claim 1, in which the material capable of generating the sound wave is a piezoceramic.

8. (original) Apparatus according to Claim 7, in which the frequency ν of the sound wave is at or adjacent the resonant frequency of the piezoceramic material.

9. (previously presented) Apparatus according to Claim 1, in which the second wall comprises glass, steel, carbon or silicon.

10. (previously presented) Apparatus according to Claim 1, in which the material in the first wall capable of transmitting the sound wave comprises steel, carbon or silicon.

11. (currently amended) Apparatus according to Claim 1, in which the sound wave is an ~~untrasound~~ultrasound wave.

12. (previously presented) Apparatus according to Claim 1, further comprising detection means for detecting particles at or adjacent the first and/or second walls.

13. (original) Apparatus according to Claim 12, in which the detection means comprise a biological sensing medium.

14. (currently amended) Apparatus according to Claim 13, in which the sensing medium ~~comprise~~comprises one or more antibodies or lectins.

15. (previously presented) Apparatus according to Claim 12, in which the second wall is removable.

16. (previously presented) Apparatus according to Claim 12, in which the second wall and the sensing medium comprise a surface plasmon resonance or a metal leaky waveguide chip.

17. (original) Apparatus according to Claim 16, in which the detection means further comprise means providing light incident the second wall

and means detecting a change in the angle thereof required for resonance or optical coupling.

18. (previously presented) Apparatus according to Claim 16, in which the detection means further comprise means detecting light scattered or emitted from the particles.

19. (currently amended) A method of detecting particles in a fluid comprising the steps of i) passing the fluid through a chamber comprising a first wall including means for generating a ~~second~~sound wave of frequency ν and a second, opposite wall capable of reflecting the sound wave which together define a conduit for the passage of the fluid and detection means for detecting particles at the first and/or second walls, ii) selecting the frequency ν such that the path length of the standing wave in the second wall is a multiple of about ½ of the wavelength λ_f of the sound wave therein and iii) detecting the particles.

20. (previously presented) A method according to Claim 19, in which the width of the conduit is a ¼ of the wavelength λ_f of the sound wave in the fluid.

21. (previously presented) A method according to Claim 19, in which the detection step is preceded by the removal of the second wall from the chamber.